

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-23, 25-44, and 46-47 are pending in the instant Application. Claims 32-35 are amended in this Response. Claims 1, 12, 32, 37 and 43 are independent claims.

Rejection Under 35 U.S.C. § 102

Claims 1-23, 25-43, and 46-47 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,642,939 to Vallone et al. (hereinafter "Vallone"). Applicant respectfully submits that claims 1-23, 25-43, and 46-47 are neither taught nor suggested by Vallone.

Vallone generally teaches a schedule presentation system that is designed to present program schedule information to a user in an intuitive manner. The system includes the use of an input section 101, a media switch 102 and an output section 103. The input section 101 is capable of receiving television (TV) input streams in various forms. Some of those forms include analog NTSC and PAL broadcast signals. Other forms include digital TV signals. The digital TV signals include signals originating from Digital Satellite System (DSS), Digital Broadcast Services (DBS), or Advanced Television Standards Committee (ATSC) sources. (See column 5, lines 4-16.)

When a TV signal in analog form (NTSC or PAL) is received, the input section 101 encodes the signal using a MPEG encoding method and passes the encoded signal to the media switch 102. When a digital TV signal (DSS, DBS, or ATSC) is received, MPEG encoded streams are extracted and passed to the media switch 102. (See column 5, lines 17-26.)

1 The media switch 102 includes a CPU, a hard disk 104 and a memory 104.
2 The media switch 102 is capable of buffering a MPEG stream into the memory
3 104. The media switch 102 is also capable of sending the MPEG stream to the
4 output section 103. (See column 5, lines 36-41.)

5 It is important for the Office to realize that the Vallone system does not
6 teach or suggest the concept of handing data streams that are encoded in various
7 encoding formats. Because of this, Vallone does not teach or suggest a system
8 that is capable of receiving data streams that are encoded in various encoding
9 formats; demultiplexing data streams that are encoded in various encoding
10 formats; separating data streams that are encoded in various encoding formats;
11 and/or capturing data streams that are encoded in various encoding formats.

12 The Applicant will now explain how the claimed invention of the instant
13 Application is neither taught nor suggested by the disclosure of the Vallone patent.

14 Claim 1 of the present application, as amended, recites:

15
16 1. A method comprising:
17 receiving a first broadcast data stream encoded using a first encoding
18 format;
19 receiving a second broadcast data stream encoded using a second
20 encoding format;
21 demultiplexing the first broadcast data stream while maintaining the
22 first encoding format of the first broadcast data stream;
23 demultiplexing the second broadcast data stream while maintaining
24 the second encoding format of the second broadcast data stream;
25 storing the first broadcast data stream on a storage device in the first
encoding format;
storing the second broadcast data stream on the storage device in the
second encoding format; and
time shifting the broadcast data stream.

1 The Office Action cites Fig. 1 of Vallone as well as column 5, lines 20-25
2 and column 8, lines 10-18 as support for receiving a broadcast data stream
3 encoded using different encoding formats. (See Office Action, page 4.) However,
4 Applicant submits that the cited portions of Vallone fail to disclose the elements of
5 amended claim 1. In particular, the language of claim 1 includes receiving,
6 demultiplexing, and storing "a first broadcast data stream encoded using a first
7 encoding format" and "a second broadcast data stream encoded using a second
8 encoding format". Applicant submits that the Vallone reference fails to disclose
9 this handling of two different broadcast data streams encoded using different
10 encoding formats as recited in claim 1.

11 Vallone discloses the use of a single encoding format (MPEG). The use of
12 a single encoding format described in Vallone is different from the elements of
13 claim 1, which include two different encoding formats associated with two
14 different broadcast data streams.

15 Indeed, Vallone can process analog (NTSC and PAL) and digital (DBS,
16 DSS, and ATSC) signals. However, this capability is not the same as being able to
17 receive, demultiplex, and store "a first broadcast data stream encoded using a first
18 encoding format" and "a second broadcast data stream encoded using a second
19 encoding format". The difference is how Vallone handles the analog and digital
20 signals.

21 The analog TV signals described in Vallone are not encoded; the digital
22 signals that the Vallone system handles are encoded. Vallone states this explicitly
23 in column 5, lines 19-26. Therefore, so that analog signals can be handled in the
24 system, Vallone *encodes* the analog signals into MPEG format for communication
25 to the media switch 102. The encoded analog signals are in the same MPEG

1 format as the incoming digital signals. The Office is again directed to column 5.
2 lines 19-26, where the foregoing is plainly described.

3 The Office maintains that Fig. 7 and the disclosure of column 8, lines 1-18
4 further substantiates that the Vallone system is capable of receiving,
5 demultiplexing, and storing "a first broadcast data stream encoded using a first
6 encoding format" and "a second broadcast data stream encoded using a second
7 encoding format". Applicant disagrees with the Office for the following reasons.

8 Fig. 7 illustrates a media switch 701 that receives input from an MPEG
9 encoder 703 and MPEG audio 704. Generally, these encoders would be part of
10 input section 101 described above. In particular, as discussed, the input section
11 101 is responsible for encoding analog signals TV signals received by the Vallone
12 system. Vallone further discusses that the media switch 701 may be configured to
13 handle MPEG2 signals if a MPEG2 transport demultiplexer is used. However,
14 Vallone explicitly states that this would require *deleting* the MPEG encoder 703
15 and the MPEG audio encoder 704. (See column 8, lines 3-6.) The foregoing
16 means that in order to handle another encoding technique, a current encoding must
17 be eliminated. Vallone describes eliminating the handling of MPEG encoded
18 signals in favor of handling MPEG2 encoded signals.

19 If the Vallone system were capable of receiving, demultiplexing, and
20 storing "a first broadcast data stream encoded using a first encoding format" and
21 "a second broadcast data stream encoded using a second encoding format", as is
22 asserted by the Office, then the deletion of MPEG encoder 703 and the MPEG
23 audio encoder 704 would be unnecessary. Actually, removing the MPEG encoder
24 703 and the MPEG audio encoder 704 in favor of a MPEG2 transport
25 demultiplexer directly indicates that the media switch 701 is unable to receive,

1 demultiplex, and store "a first broadcast data stream encoded using a first
2 encoding format" and "a second broadcast data stream encoded using a second
3 encoding format".

4 Accordingly, for at least these reasons, Applicant respectfully submits that
5 claim 1 is allowable over Vallone. Given that claims 2-11 depend from claim 1,
6 Applicant respectfully submits that those claims are likewise allowable over
7 Vallone for at least the reasons discussed above.

8 Claim 12 of the present application, as amended, recites:

9
10 12. A method comprising:
11 receiving a first digital data stream encoded using a first encoding
12 format;
13 receiving a second digital stream encoded using a second encoding
14 format;
15 separating components of the first digital data stream;
16 storing the components of the first digital data stream on a storage
17 device, wherein the components are stored in the first encoding format;
18 receiving a command to play back the first digital data stream;
19 retrieving at least one of the stored components of the first digital
20 data stream from the storage device;
21 decoding the retrieved component; and
22 rendering the components of the first digital data stream in a manner
23 that corresponds to the received play back command.
24
25

19 Applicant submits that the Vallone reference does not disclose the elements
20 of claim 12. In particular, the language of claim 12 includes receiving "a first
21 *digital* data stream encoded using a first encoding format" and "a second *digital*
22 data stream encoded using a second encoding format". As discussed above with
23 respect to claim 1, Vallone discloses the use of a single encoding format (MPEG).
24 Vallone fails to mention receiving two different digital data streams encoded using
25 different encoding formats, as recited in claim 12. The use of a single encoding

1 format described in Vallone is different from receiving two different data streams
2 with different encoding formats. Moreover, it cannot be fairly said that the analog
3 TV signals (NTSC or PAL) and the digital TV signals (DBS, DSS, or ATSC)
4 teach the indicted limitations of claim 12. First, one signal is analog and the other
5 is digital. Second, even if the Vallone system were capable of receiving two
6 digital signals, as discussed above, those signals could be received only if they
7 were in MPEG format. Thus, Vallone fails to disclose the elements of amended
8 claim 12.

9 Further, Applicant submits that Vallone fails to disclose "storing the
10 components of the first digital data stream on a storage device, wherein the
11 components are stored in the first encoding format" prior to "receiving a command
12 to play back the first digital data stream", as recited in claim 12. Thus, the method
13 of claim 12 stores the components of the first digital data stream and, at a later
14 time, receives and decodes the stored components after receiving a command to
15 play back the digital data stream. Vallone fails to disclose this method of
16 operation.

17 Fig. 7 of Vallone and the associated discussion of Fig. 7 (column 7, line 66
18 through column 9, line 18) discloses a process that is different from the method of
19 claim 12. For example, the disclosure of Fig. 7 in Vallone fails to disclose storing
20 encoded data and waiting to decode the stored data until a playback command is
21 received.

22 Accordingly, Vallone fails to disclose the elements of claim 12. Thus, for
23 at least these reasons, Applicant respectfully submits that claim 12 is allowable
24 over Vallone. Given that claims 13-23 and 25-31 depend from claim 12,
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1 Applicant respectfully submits that those claims are likewise allowable over
2 Vallone for at least the reasons discussed above.

3 Claim 32 of the present application recites:

4
5 32. A method comprising:
6 receiving at least two broadcast data streams, one of the at least two
7 broadcast streams utilizing a first encoding format and another of the at
8 least two broadcast streams utilizing a second encoding format;
9 separating components of one of the at least two broadcast streams;
10 storing the components of one of the at least two broadcast streams
11 on a storage device;
12 retrieving the components of the stored one of the at least two
13 broadcast streams from the storage device;
14 decoding the retrieved components;
15 rendering the components of one of the at least two broadcast
16 streams; and
17 receiving a request to pause rendering of one of the at least two
18 broadcast streams currently being rendered, in response to the pause
19 request:
20 halting rendering of one of the at least two broadcast streams
21 currently being rendered;
22 continuing to store the components of the halted one of the at
23 least two broadcast streams on the storage device.

24 Applicant submits that Vallone fails to disclose "rendering the components
25 of the broadcast data stream; and receiving a request to pause rendering of the
broadcast data stream, in response to the pause request: halting rendering of the
broadcast data stream; continuing to store the components of the broadcast data
stream on the storage device", as recited in claim 32. The Office Action cites
column 9, lines 60-68 and column 10, lines 1-10 of Vallone as support for these
limitations. That portion of Vallone states:

To pause the pipeline, for example, an event called "pause" is sent to
the first object in the pipeline. The event is relayed on to the next object and

1 so on down the pipeline. This all happens a synchronously to the data going
2 through the pipeline. Thus, similar to applications such as telephony,
3 control of the flow of MPEG streams is asynchronous and separate from the
4 streams themselves. This allows for a simple logic design that is at the same
5 time powerful enough to support the features described previously,
6 including pause, rewind, fast forward and others. In addition, this structure
7 allows fast and efficient switching between stream sources, since buffered
8 data can be simply discarded and decoders reset using a single event, after
9 which data from the new stream will pass down the pipeline. Such a
10 capability is needed, for example, when switching the channel being
11 captured by the input section, or when switching between a live signal from
12 the input section and a stored stream.

13 The cited language of Vallone discusses objects in a pipeline and
14 communicating a "pause" event through the pipeline. However, the cited
15 language fails to disclose halting the rendering of a broadcast data stream and
16 continuing to store the components of the broadcast data stream on the storage
17 device. The mere mention of a "pause" event does not disclose halting the
18 rendering of a broadcast data stream. Further, the "pause" event makes no
19 reference to continuing to store components of the broadcast data stream.

20 Furthermore, claim 32 recites "receiving at least two broadcast data
21 streams, one of the at least two broadcast streams utilizing a first encoding format
22 and another of the at least two broadcast streams utilizing a second encoding
23 format." As is discussed in detail above, the Vallone system fails to teach or
24 suggest the concept of receiving broadcast signals in a first and second encoding
25 format, respectively. Vallone merely teaches the capability of receiving analog
signals and encoding those signals, and receiving digital signals in MPEG encoded
format. The system passes the encoded signals to a module that handles
outputting of the encoded signals. The encoded signals may only be encoded

1 using one particular encoding scheme if they are to be properly handled by the
2 Vallone system.

3 Accordingly, Vallone fails to disclose the elements of claim 32. Thus, for
4 at least these reasons, Applicant respectfully submits that claim 32 is allowable
5 over Vallone. Given that claims 33-36 depend from claim 32, Applicant
6 respectfully submits that those claims are likewise allowable over Vallone for at
7 least the reasons discussed above.

8 Claim 37 of the present application, as amended, recites:

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10 37. One or more computer-readable media having stored thereon
11 a computer program that, when executed by one or more processors, causes
12 the one or more processors to:

13 separate the components of a first broadcast data stream encoded
14 using a first encoding format;

15 separate the components of a second broadcast data stream encoded
16 using a second encoding format;

17 store the components of the first and second broadcast data streams
18 on a hard disk drive;

19 receive a request to play back the stored components of the first
20 broadcast data stream;

21 retrieve the stored components of the first broadcast data stream
22 from the hard disk drive;

23 decode the components of the first broadcast data stream; and
24 render the components of the first broadcast data stream.

25 The Vallone reference fails to disclose the elements of claim 37. As
discussed above with respect to claims 1, 12 and 32 Vallone fails to disclose a
system that handles both a first broadcast data stream encoded using a first
encoding format and a second broadcast data stream encoded using a second
encoding format.

Further, the Vallone reference fails to disclose storing the components of
the broadcast data stream on a hard disk drive prior to retrieving and decoding

1 those components, as recited in claim 37. Thus, the claimed system stores the
2 components of the first and second broadcast data streams and, at a later time,
3 retrieves and decodes those stored components (after receiving a request to play
4 back the stored components). As discussed above with respect to claim 12,
5 Vallone fails to disclose this method of operation. For example, Fig. 7 of Vallone
6 and the associated discussion of Fig. 7 (column 7, line 66 through column 9, line
7 18) discloses a process that is different from the method of claim 37.

8 Accordingly, Vallone fails to disclose the elements of claim 37. Thus, for
9 at least these reasons, Applicant respectfully submits that claim 37 is allowable
10 over Vallone. Given that claims 38-42 depend from claim 37, Applicant
11 respectfully submits that those claims are likewise allowable over Vallone for at
12 least the reasons discussed above.

13 Claim 43 of the present application, as amended, recites:

14 43. An apparatus comprising:

15 a capture module configured to capture a first data stream and a
16 second data stream, wherein the first data stream is represented by a first
17 data format and the second data stream is represented by a second data
18 format, and wherein the first data stream is encoded using a first encoding
format and the second data stream is encoded using a second encoding

19 a data storage module configured to store the captured data streams
in their encoded formats; and

20 a rendering module configured to decode the data streams and to
render the data streams from the data stored on the data storage module.

21
22 As discussed above with respect to claims 1, 12, 32 and 37 the Vallone
23 patent fails to disclose the handling of a first data stream encoded using a first
24 encoding format and a second data stream encoded using a second encoding
25

1 format, as recited in claim 43. As discussed above, Vallone discloses the use of a
2 single encoding format (MPEG). In contrast, the elements of claim 43 recite the
3 use of multiple different encoding formats.

4 Further, Vallone fails to disclose a first data stream represented by a first
5 data format and a second data stream represented by a second data format, as
6 recited in claim 43.

7 Accordingly, Vallone fails to disclose the elements of claim 43. Thus, for
8 at least these reasons, Applicant respectfully submits that claim 43 is allowable
9 over Vallone. Given that claims 46-47 depend from claim 43, Applicant
10 respectfully submits that those claims are likewise allowable over Vallone for at
11 least the reasons discussed above.

12 Applicant respectfully requests that the §102 rejections be withdrawn.

13
14 **Conclusion**

15 Claims 1-23, 25-43, and 46-47 are in condition for allowance. Applicant
16 respectfully requests reconsideration and issuance of the subject application.
17 Should any matter in this case remain unresolved, the undersigned attorney
18 respectfully requests a telephone conference with the Examiner to resolve any
19 such outstanding matter.
20

21 Respectfully Submitted,

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